ABSTRACT OF THE DISCLOSURE

Disclosed are an organic anti-reflective coating polymer having a structure represented by the following formula I, its preparation method and an organic anti-reflective coating composition with respect to an ultra-fine pattern formation process of the photoresist for photolithography technique using ArF light source with a wavelength of 193nm or VUV light source with a wavelength of 157nm. An organic anti-reflective coating polymer capable of protecting a photoresist from amines in the atmosphere to minimize the post exposure delay effect after exposure to light and, at the same time, enhances notching status, such as, a pattern distortion caused by diffused reflection, and reducing reflection rate to minimize the swing effect.

Formula I

wherein m is an integer ranging from 5 to 5000.